IN THE CLAIMS

Please amend the claims as follows:

1. (original) Modulation code system comprising

a modulation code encoder (110) for coding the original signal s into an intermediate signal t satisfying predefined first constraints;

a transformer encoder (120) for converting said intermediate signal t in order to generate an encoded signal c satisfying a predefined second constraint

means for supplying the encoded signal c to a medium;

means for retrieving the encoded signal c from said medium;

a transformer decoder (220) for converting the encoded signal c so as to obtain said intermediate signal t and

a modulation code decoder (210) for decoding said intermediate signal t into said original signal s,

wherein the transformer decoder (220) is adapted to convert a signal that violates the predefined second constraint into another signal that violates the predefined first constraint, the transformer decoder (220) having a polynomial function b(D), and the transformer encoder (120) having the polynomial function 1/b(D).

2. (original) The modulation code system as claimed in claim 1, wherein the predefined first constraint is a k-constraint and the predefined second constraint is at least an anti-whistle-constraint.

3. (currently amended) The modulation code system as claimed in claim 1~~or 2~~, wherein the transformer encoder is in the form of a linear feedback filter.

4. (currently amended) The modulation code system as claimed in claim 1~~or 2~~, wherein the transformer encoder is in the form of a linear filter.

5. (currently amended) The modulation code system as claimed in claim 1~~or 2~~, wherein the medium is a record carrier.

6. (currently amended) The modulation code system as claimed in claim 1~~or 2~~, wherein the medium is a transmission medium.

7. (original) A decoder (200) for use in the modulation code system as claimed in claim 1, for retrieving an original signal s from an encoded signal c, the decoder comprising

a transformer decoder (220) for filtering the encoded signal

c in order to generate an intermediate signal t ; and

a modulation code decoder (210) for decoding said intermediate signal t into said original signal s, wherein the transformer decoder (220) is adapted to convert a signal that violates a predefined second constraint into another signal that violates a predefined first constraint, the transformer decoder (220) having a polynomial function b(D).

8. (original) The decoder as claimed in claim 7, wherein the predefined first constraint is a k-constraint and the predefined second constraint is at least an anti-whistle-constraint.

9. (currently amended) The decoder as claimed in claim 7~~ or 8~~, wherein the transformer decoder is in the form of a linear filter.

10. (currently amended) The decoder (200) according to claim 7 ~~or 8~~, characterized in that the transformer decoder (220) is embodied as a sliding block decoder filter comprising

a linear shift register consisting of N delay elements (220-1,...,220-N) being connected in series, wherein the first delay element (220-1) of said series connection receives the encoded signal c after transmission or restoration and wherein the output signals of the first N-1 delay elements (220-1,...,220-(N-1)) are

input to the respective consecutive delay elements (220-2,...,220-N);

N multiplier elements (221-1,...,221-N) each of which receiving another one of said N output signals of said delay elements (222-1, ...,222-N) and multiplying the received delay output signal by a given constant ($b_1$,...,$b_N$) for generating a respective multiplier output signal; and

a XOR-gate (222) for receiving and XOR-combining said N multiplier output signals and said encoded signal c in order to generate the intermediate signal t as output by the transformer decoder (220), N being an integer larger than 2.

11. (currently amended) The decoder (200) according to claim 7 ~~or 8~~, characterized in that the transformer decoder (220) is implemented at least partly in software or hardware.

12. (currently amended) The decoder (200) according to claim 7 ~~or 8~~, characterized in that the decoder (200) has a modulation code rate close to 1.

13. (currently amended) The decoder (200) according to claim 7 ~~or 8~~, characterized in that the modulation code decoder (210) is a (0,k)-decoder.

14. (original) Decoding method of decoding an encoded signal c satisfying predetermined second constraints into an original signal; characterized by the following steps:

filtering the encoded signal c by means of the polynomial function 1/b(D) in order to generate an intermediate signal t satisfying predetermined first constraints, wherein b(D) is a polynomial function that converts a signal that violates the predefined second constraints into another signal that violates the predefined first constraints; and

decoding the intermediate signal t into the original signal s .

15. (original) An encoder (100) for use in the modulation code system as claimed in claim 1, wherein the encoder comprises

a modulation code encoder (110) for transforming the original signal s into the intermediate signal t satisfying predefined first constraints; and

the transformer encoder (120) has the polynomial function 1/b(D) for filtering said intermediate signal t in order to generate said encoded signal c satisfying predefined second constraints, wherein b(D) is a polynomial function that converts a

signal that violates the predefined second constraints into another signal that violates the predefined first constraints.

16. (original) The encoder as claimed in claim 15, wherein the predefined first constraint is a k-constraint and the predefined second constraint is at least an anti-whistle-constraint.

17. (currently amended) The encoder as claimed in claim 15~~or 16~~, wherein the transformer encoder is in the form of a linear feedback filter.

18. (original) The encoder (100) according to claim 15, characterized in that the transformer encoder (120) comprises

a linear shift register consisting of N delay elements (120-n with n = 1-N) being connected in series such that the output signals of the N-1 delay elements (120-1 to 120-(N-1)) are input to the consecutive delay element (120-2 to 120-N), respectively;

N multiplier elements (121-n) each of which receiving another one of said N output signals of said delay elements (122-1, ..., 122-N) and multiplying the received delay element output signal with a constant ($m_1$, ... $m_N$) for generating a respective multiplier output signal;

a first XOR-gate (122) for receiving and XOR-combining said N

multiplier output signals in order to generate a first XOR-output signal; and

a second XOR-gate (123) for XOR-combining the intermediate signal t output by said modulation code encoder 110 with said first XOR-output signal in order to generate a second XOR-output signal which corresponds to the encoded signal c output by said transformer encoder (120) and which is input to the first delay element (120-1) of said series connection of delay elements (121-1,....,120-N), N being an integer larger than 2.

19. (original) The encoder (100) according to claim 15, characterized in that the transformer encoder (120) is implemented in software or hardware.

20. (original) The encoder according to claim 15, characterized in that the encoder (100) has a modulation code rate close to 1.

21. (original) The encoder according to claim 15, characterized in that the modulation code encoder (110) is a (0,k)-encoder.

22. (original) Encoding method for transforming an original signal s into an encoded signal c satisfying predefined second constraints;

characterized by the following steps:

transforming the original signal s into an intermediate signal t satisfying predefined first constraints; and

filtering the intermediate signal t by means of the polynomial function 1/b(D) in order to generate an encoded signal c satisfying predefined second constraints, wherein b(D) is a polynomial function that converts a signal that violates the predefined second constraints into another signal that violates the predefined first constraints.

23. (original) Encoded signal obtained with the encoding method according to claim 22.

24. (original) Record carrier carrying the encoded signal obtained with the encoding method according to claim 22.